

Appl. No. 09/932,236

REMARKS

Claims 1, 3 and 6-10 are canceled; claims 2, 13 and 14 are amended; and claims 2, 4, 13, 14 and 42-47 are pending in the application.

Claim 2 stands rejected as being anticipated by Lai. Applicant has amended claim 2, and believes that the amended claim is allowable over the cited reference.

Applicant's amendment to claim 2 introduces a limitation that a recited metal-containing mass is patterned into a rectangular block. Such limitation is supported by the originally-filed application at, for example, the last line of p. 4, and the Figure. The amendment to claim 2 therefore does not comprise "new matter".

Amended claim 2 is distinguishable over the cited reference of Lai for at least the reason that the cited reference does not disclose a process in which a metal-containing mass is formed from a metallo-organic precursor, and subsequently patterned into a rectangular block. Applicant therefore requests allowance of claim 2 in the Examiner's next Action.

Claims 4, 13, 14 and 42-47 depend from claim 2, and are therefore allowable for at least the reasons discussed above regarding claim 2. Applicant therefore requests formal allowance of such claims in the Examiner's next Action.

Respectfully submitted,

By:

David G. Latwesen, Ph.D.
Reg. No. 38,533

Dated: JANUARY 30, 2003

Appl. No. 09/932,236

Application Serial No.09/932,236
Filing DateAugust 16, 2001
Inventor.....Haining Yang
AssigneeMicron Technology, Inc.
Group Art Unit.....2813
ExaminerHogans, David L.
Attorney's Docket No.MI22-1725
Title: Methods of Forming Metal-Comprising Materials and Capacitor Electrodes; and Capacitor Constructions

VERSION WITH MARKINGS TO SHOW CHANGES MADE ACCOMPANYING
RESPONSE TO NOVEMBER 4, 2002 OFFICE ACTION

In the Claims

The claims have been amended as follows. Underlines indicate insertions and ~~strikeouts~~ indicate deletions.

Claims 1, 3 and 6-10 are cancelled.

2. (Amended) A method of forming a metal-comprising mass for a semiconductor construction, comprising:
 providing a semiconductor substrate;
 providing one or more metallo-organic precursors proximate the substrate, at least one of the one or more precursors not comprising platinum;
 exposing the one or more precursors to a reducing atmosphere to release metal from the one or more precursors;

Appl. No. 09/932,236

d positing the releas d metal over the semiconductor substrate to form a metal-comprising mass on the semiconductor substrate; and wherein the substrate comprises an upper surface consisting of one or more of TiN, elemental Ti, WN, elemental W, TaN and elemental Ta; and the upper surface is exposed to the reducing atmosphere during formation of the metal-comprising mass; and patterning the metal-containing mass into a rectangular block.

4. (Unchanged) The method of claim 2 wherein the metal-comprising mass is formed physically against the upper surface of the substrate.

13. (Amended) The method of claim 42 wherein the reducing atmosphere comprises plasma-activated hydrogen.

14. (Amended) The method of claim 42 wherein the reducing atmosphere comprises H₂.

42. (Unchanged) The method of claim 2 wherein the upper surface consists of TiN.

43. (Unchanged) The method of claim 2 wherein the upper surface consists of elemental Ti.

44. (Unchanged) The method of claim 2 wherein the upper surface consists of WN.

Appl. No. 09/932,236

45. (Unchanged) The method of claim 2 wherein the upper surface consists of elemental W.

46. (Unchanged) The method of claim 2 wherein the upper surface consists of TaN.

47. (Unchanged) The method of claim 2 wherein the upper surface consists of elemental Ta.

--END OF DOCUMENT--